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PATENT

transformer side of the node.

Please add the following claim:

31. A system for providing data communications around an electric power meter that is electrically coupled to a power line, comprising:

PS a power line communications repeater communicatively coupled to the power line on each side of the electric power meter to provide a path for data to bypass the electric power meter.

#### REMARKS

Claims 2-7, 10-16, 18-22, and 24-31 are currently pending in this application. By this amendment, claims 2, 7, 10, 12, 24, 28, and 30 are amended. Claims 8, 9, 17, and 23 have been cancelled. Claim 31 has been added. No new matter is added. Applicants respectfully submit that, upon entry of the subject amendment, the application will be in condition for allowance. Applicants, thus, respectfully request consideration of the above amendment and following remarks.

In the pending Office Action: (1) claims 2-26 and 28-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,297,729 to Abali et al. ("Abali") in view of U.S. Patent No. 6,239,722 to Colton et al. ("Colton"); and (2) claim 27 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Abali in view of Colton and further in view of U.S. Patent No. 4,652,855 to Weikel ("Weikel"). The rejections of the claims are respectfully traversed based on the following discussion.

Briefly, the present invention relates to isolating data in a power line communications system. As shown in the various embodiments of Figures 3-5, the invention may be comprised of a filter and a power line communication (PLC) repeater that is connected to a power line on each side of the filter. As shown in Figure 2, the invention also may comprise one or more filters and a PLC router that are in communication with the power lines. In the example embodiment of Figure 5, the repeater is connected to the power line on the transformer side of the filter and on the subscriber side of the electric meter, thereby providing a bypass for data around the meter (and filter). As explained in the specification, the invention permits data intended for the subscriber to enter the subscriber premises, but substantially prohibits noise (and perhaps other data) from entering the subscriber premises.

**Rejection of claims 2-26 under 35 U.S.C. § 103 (a)**

Claims 2-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Abali in view of Colton. None of the prior art references cited in the office action, either alone or in combination, teaches or suggests the claimed device comprising a power line communications repeater connected to a power line across a filter. Applicants, therefore, respectfully request withdrawal of the rejections under 35 U.S.C. § 103(a).

Independent claim 2 of the present invention claims a low pass filter and a power line communications repeater connected to the branch line across the low pass filter. Similarly, amended claim 10 claims a power line communications repeater communicatively coupled to the electrical power line on each side of the first filter.

In explaining the grounds for rejection of claim 2, the office action states “a repeater for moving all received packets between LAN segments, boosting the signal and extending the length of the network media or for routing information between two networks is old and well known in the art.” Applicant, however, is not merely claiming a repeater and instead is claiming the combination of a power line communications repeater that is connected to a power line across a filter.

Similarly, the office action relies on the router disclosed by Colton for the teaching of a device to move all frames between two networks. However, unlike the present invention, Colton does not disclose a power line communications repeater. Instead, Colton reads:

The data signal is transmitted from the control means 12 over the wire medium, such as telephone lines, which are received by the WAN provider for re-transmission to the concentrator meter 14. The WAN provider exchanges the data from the wire to wireless medium, such as by a router, and then transmits the data as radio frequency signals to the concentrator meter 14.

Col. 6, lines 16-22.

While the cited passage of Colton mentions re-transmission, the WAN provider described in Colton receives the data by a wire medium and transmits the data wirelessly. Contrary to the present invention, Colton fails to teach or suggest a power lines communication repeater or such a repeater connected across a filter.

Because none of the prior art references cited by the Examiner teaches or suggests a power line communications meter connected to a power line across a filter, Applicants respectfully request withdrawal of the rejections of the pending independent claims 2 and 10. Likewise, because a dependent claim includes all the

limitations of the claim from which it depends, Applicants respectfully request withdrawal of the rejections of dependent claims 3-6 and 11-27, which depend from independent claims 2 and 10, respectively.

In the rejection of claim 7, the office action relies on the discussions of claims 2 and 4. Claim 7 requires that the power line communications repeater be connected across both the filter and the power meter. Based on the remarks above relating to claims 2 and 10, Applicants respectfully request withdrawal of the rejection of claim 7.

**Rejection of Claims 28-30 under 35 U.S.C. § 103(a)**

Claims 28-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Abali in view of Colton. None of the prior art references cited in the office action, either alone or in combination, teaches or suggests the claimed device comprising a filter coupled to a branch line and a router communicatively coupled to a network and the branch line on the subscriber premises side of the filter. Applicants, therefore, respectfully request withdrawal of the rejections under 35 U.S.C. § 103(a).

Independent claim 28 requires a filter coupled to a branch line and a router communicatively coupled to a network and the branch line on the subscriber premises side of the filter. Likewise, claim 30 requires a router communicatively coupled to the branch line at a node, and a low pass filter coupled to the branch line on the electric power distribution transformer side of the node.

Colton mentions a router for exchanging the data from a wired medium, such as a telephone line, to a wireless medium. However, Colton fails to teach or suggest

a router communicatively coupled to a branch line on the customer premises side of a filter as required by claims 28 and similarly required by claim 30. In addition, there is no motivation to combine Colton with Abali and the teachings of these references are at odds with each other because Colton is directed to a system for providing communication between remote locations in contrast to Abali which is directed to a method of securing communications along AC power lines.

Because none of the prior art references cited in the office action teaches or suggests filter coupled to a branch line and a router communicatively coupled to a network and the branch line on the subscriber premises side of the filter, Applicants respectfully request withdrawal of the rejection of the pending independent claims 28 and 30. Likewise, because a dependent claim includes all the limitations of the claim from which it depends, Applicants respectfully request withdrawal of the rejections of dependent claims 29, which depends from independent claim 28.

New claim 31 has been added to claim a power line communications repeater communicatively coupled to a power line on each side of an electric power meter. None of the references cited in the office action teach or suggest the claimed combination.

In view of the foregoing, it is respectfully submitted that the claimed invention is patentably distinguished over the asserted prior art references and that the application stands in condition for allowance. It is respectfully requested that the application be reconsidered, that all pending claims be allowed, and that the application be passed to issue.

**CONCLUSION**

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the Vincent J. Roccia, at (215) 564-8946, to discuss any other changes deemed necessary in a telephonic interview.

If an additional extension is necessary for this amendment to be considered timely filed, a written conditional petition therefore is hereby made. Authorization is hereby granted to charge any deficiencies in fees, including any fees for extension of time under 37 C.F.R. §1.136(a), to Deposit Account 23-3050. Please credit any overpayment in fees to the same deposit account.

Date: March 13, 2003



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**Marked up versions of claims 2, 7, 10, 12, 24, 28, and 30, which are amended herein, showing all of the changes relative to the previous version of each.**

Claim 31 has been added.

2. A network coupler to provide network communications isolation in a branch line connected to a subscriber premises through an electric power meter, the network coupler comprising:

a low pass filter coupled to the branch line adjacent to the power meter; and

a power line communications repeater connected to the branch line across the low pass filter.

7. A network coupler to provide network communications isolation in a branch line connected to a subscriber premises through an electric power meter, the network coupler comprising:

a low pass filter coupled to the branch line [adjacent to the power meter]; and

a power line communications repeater connected to the branch line across both the low pass filter and the power meter.

10. A system for providing data communications over an electrical power line [to a subscriber], comprising:

a first filter coupled to the electrical power line, wherein the filter prevents the flow of data signals through the electrical power line and permits the flow of power signals through the electrical power line; and

a power line communications repeater [in communication with]

communicatively coupled to the electrical power line on each side of said first filter  
[to control the flow of data signals to the subscriber].

12. The system of claim 10, wherein the power line communications repeater prevents [the] a first subscriber from accessing data associated with [another] a second subscriber.

24. The system of claim 22, further comprising another power line communications repeater in [communication with the second filter and] communicatively coupled to the second of the electrical power lines on each side of said second filter.

28. A system for providing network communications to subscribers device at subscriber premises through an electrical power system having a first branch line and a second branch line, the system comprising:

a first low pass filter coupled to the first branch line; and

a router [connected] communicatively coupled to the network and the first branch line on the subscriber premises side of the low pass filter to control data communications for the subscriber premises.

30. A system for providing network communications to a subscriber device at a subscriber premises through a branch line, the branch line connected to an electric power distribution transformer and to the subscriber premises, the system comprising:

a router [connected] communicatively coupled to the branch line at a node to



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control data communications for the subscriber premises; and

a low pass filter coupled to the branch line on the electric power distribution transformer side of the node.